



1AP13 Rec'd PCT/PTO 01 FEB 2007

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: Q76643

Fumio MATSUMOTO

Appln. No.: 10/564,734

Group Art Unit: 1722

Confirmation No.: 9627

Examiner: Unknown

Filed: January 17, 2006

For: InP SINGLE CRYSTAL, GaAs SINGLE CRYSTAL, AND METHOD FOR  
PRODUCTION THEREOF

**REQUEST FOR CORRECTED OFFICIAL FILING RECEIPT AND CORRECTED  
NOTICE OF ACCEPTANCE**

**ATTN:** Office of Initial Patent Examination  
Filing Receipt Correction  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

We enclose a copy of the Official Filing Receipt and the Notice of Acceptance for the  
above-identified application and request the following corrections:

**Assignment for Published Patent Application**

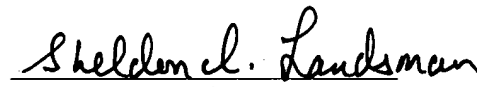
**SHOWA DENKO K.K.**

**Domestic Priority data as claimed by applicant**

This application is a 371 of PCT/JP04/04055 **010555** 07/16/2004

Verification for the requested corrections is indicated on the Assignment and Declaration  
and Power of Attorney filed June 29, 2006.

Respectfully submitted,

  
Sheldon I. Landsman  
Registration No. 25,430

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

Date: February 1, 2007



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/564,734	06/29/2006	1722	1030	Q76643	1	15	3

CONFIRMATION NO. 9627

23373  
SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

**DOCKETED**

JAN 10 2007

**FILING RECEIPT**

\*OC00000021883977\*

Date Mailed: 01/08/2007

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

**Applicant(s)**

Fumio Matsumoto, Saitama, JAPAN; ✓

ASSIGNMENT FOR PUBLISHED PATENT APPLICATION  
SHINA DENKO K.K.

Power of Attorney: The patent practitioners associated with Customer Number **23373**.**Domestic Priority data as claimed by applicant**This application is a 371 of PCT/JP04/010555 07/16/2004**Foreign Applications**PCT/JP04/010555

JAPAN 2003-275987 07/17/2003

If Required, Foreign Filing License Granted: 01/07/2007

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US10/564,734**

Projected Publication Date: 04/19/2007

Non-Publication Request: No

Early Publication Request: No



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 www.uspto.gov

U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/564,734	Fumio Matsumoto	Q76643

23373  
 SUGHRUE MION, PLLC  
 2100 PENNSYLVANIA AVENUE, N.W.  
 SUITE 800  
 WASHINGTON, DC 20037

INTERNATIONAL APPLICATION NO.

PCT/JP04/01055 PCT/JP04/010555

I.A. FILING DATE

PRIORITY DATE

07/16/2004

07/17/2003

**DOCKETED**

JAN 10 2007

CONFIRMATION NO. 9627

371 ACCEPTANCE LETTER



\*OC000000021883978\*

Date Mailed: 01/08/2007

**NOTICE OF ACCEPTANCE OF APPLICATION UNDER 35 U.S.C 371 AND 37 CFR 1.495**

The applicant is hereby advised that the United States Patent and Trademark Office in its capacity as a Designated / Elected Office (37 CFR 1.495), has determined that the above identified international application has met the requirements of 35 U.S.C. 371, and is ACCEPTED for national patentability examination in the United States Patent and Trademark Office.

The United States Application Number assigned to the application is shown above and the relevant dates are:

<u>06/29/2006</u>	<u>06/29/2006</u>
DATE OF RECEIPT OF 35 U.S.C. 371(c)(1), (c)(2) and (c)(4) REQUIREMENTS	DATE OF COMPLETION OF ALL 35 U.S.C. 371 REQUIREMENTS

A Filing Receipt (PTO-103X) will be issued for the present application in due course. **THE DATE APPEARING ON THE FILING RECEIPT AS THE " FILING DATE" IS THE DATE ON WHICH THE LAST OF THE 35 U.S.C. 371 (c)(1), (c)(2) and (c)(4) REQUIREMENTS HAS BEEN RECEIVED IN THE OFFICE. THIS DATE IS SHOWN ABOVE.** The filing date of the above identified application is the international filing date of the international application (Article 11(3) and 35 U.S.C. 363). Once the Filing Receipt has been received, send all correspondence to the Group Art Unit designated thereon.

The following items have been received:

- Copy of the International Application filed on 01/17/2006
- English Translation of the IA filed on 01/17/2006
- Copy of the International Search Report filed on 01/17/2006
- Copy of IPE Report filed on 01/17/2006
- Preliminary Amendments filed on 01/17/2006
- Information Disclosure Statements filed on 01/17/2006
- Oath or Declaration filed on 06/29/2006
- Request for Immediate Examination filed on 01/17/2006
- U.S. Basic National Fees filed on 01/17/2006
- Priority Documents filed on 01/17/2006

# ASSIGNMENT

Whereas, I/we

Fumio MATSUMOTO

of c/o SHOWA DENKO K.K.

1505, Shimokagemori, Chichibu-shi, Saitama 369-1871, JAPAN

hereinafter called assignor(s), have invented certain improvements in

INP SINGLE CRYSTAL, GaAs SINGLE CRYSTAL,  
AND METHOD FOR PRODUCTION THEREOF

and executed an application for Letters Patent of the United States of America therefor on

February 14, 2006 ; and

Whereas, SHOWA DENKO K.K.

of 13-9, Shiba Daimon 1-chome, Minato-ku, Tokyo 105-8518, JAPAN

(assignee), desires to acquire the entire right, title and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/We, the above named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including the right to claim priority under 35 U.S.C. § 119, and I/we request the Director – U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States application when called upon to do so by the assignee.

I/We hereby authorize and request my/our attorneys SUGHRUE MION, PLLC of 2100 Pennsylvania Avenue, N.W., Washington, D.C. 20037-3213 to insert here in parentheses (Application number 10/564,734, filed January 17, 2006) the filing date and application number of said application when known.

Date: February 14, 2006

sl/ Fumio Matsumoto

Fumio MATSUMOTO I



# Declaration and Power of Attorney for Patent Application

特許出願宣言書及び委任状

## Japanese Language Declaration

日本語宣言書

私は、以下に記名された発明者として、ここに下記の通り宣言する。

私の住所、郵便の宛先及び国籍は、私の氏名の後に記載された通りである。

下記の名称の発明について、特許請求範囲に記載され、且つ特許が求められている発明主題に関して、私は、最初、最先且つ唯一の発明者である(唯一の氏名が記載されている場合)か、或いは最初、最先且つ共同発明者である(複数の氏名が記載されている場合)と信じている。

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

InP SINGLE CRYSTAL, GaAs SINGLE CRYSTAL, AND METHOD FOR PRODUCTION THEREOF

上記発明の明細書はここに添付されているが、下記の欄がX印でチェックされている場合は、この限りでない:

☐ \_\_\_\_月 \_\_\_\_日に出席され、

この出願の米国出願番号またはPCT国際出願番号は、

\_\_\_\_であり、且つ

\_\_\_\_月 \_\_\_\_日に補正された出願(該当する場合)

the specification of which is attached hereto unless the following box is checked:

☒ was filed on July 16, 2004  
as United States Application Number or  
PCT International Application Number

PCT/JP2004/010555 and was amended on  
\_\_\_\_ (if applicable).

私は、上記の補正書によって補正された特許請求範囲を含む上記明細書を検討し、且つ内容を理解していることをここに表明する。

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

私は、連邦規則法典第37編1.56に定義されている特許性について重要な情報を開示する義務があることを認める。

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

# Japanese Language Declaration

(日本語宣言書)

私は、ここに、下記に記載した外国での特許出願または発明者証の出願、或いは米国以外の少なくとも一カ国を指定している米国法典第35編365条(a)項によるPCT国際出願について、同第119条(a)-(d)項又は第365条(b)項に基づいて優先権を主張するとともに、優先権を主張する本出願の出願日より前の出願日を有する外国での特許出願または発明者証の出願、或いはPCT国際出願については、いかなる出願も、下記の枠内をチェックすることにより示した。

I hereby claim foreign priority under Title 35, United States Code, Section 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed.

## Prior Foreign Applications

外国での先行出願

Priority Not Claimed

優先権主張なし

<u>2003-275987</u>	<u>JAPAN</u>	<u>17 / July / 2003</u>
(Number) (番号)	(Country) (国名)	(Day/Month/Year Filed) (出願日 / 月 / 年)
<u>                    </u>	<u>                    </u>	<u>                    </u>
(Number) (番号)	(Country) (国名)	(Day/Month/Year Filed) (出願日 / 月 / 年)
<u>                    </u>	<u>                    </u>	<u>                    </u>
(Number) (番号)	(Country) (国名)	(Day/Month/Year Filed) (出願日 / 月 / 年)

☐☐☐

私は、ここに、下記のいかなる米国仮特許出願についても、その米国法典第35編119条(e)項の利益を主張する。

I hereby claim the benefit under Title 35, United States Code, Section 119(e) of any United States provisional application(s) listed below.

<u>                    </u>	<u>                    </u>	<u>60/489,494</u>	<u>24 / July / 2003</u>
(Application No.) (出願番号)	(Filing Date) (出願日)	(Application No.) (出願番号)	(Filing Date) (出願日)

私は、ここに、下記のいかなる米国出願についても、その米国法典第35編第120条に基づく利益を主張し、また米国を指定するいかなるPCT国際出願についても、その同第365条(c)に基づく利益を主張する。また、本出願の各特許請求の範囲の主題が、米国法典第35編第112条第1段に規定された態様で、先行する米国出願またはPCT国際出願に開示されていない場合においては、その先行出願の出願日と本国内出願日またはPCT国際出願日との間の期間中に入手された情報で、連邦規則法典第37編規則1.56に定義された特許性に関わる重要な情報について開示義務があることを承認する。

I hereby claim the benefit of Title 35, United States Code Section 120 of any United States application(s), or 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code Section 112, I acknowledge the duty to disclose any material information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

<u>                    </u>	<u>                    </u>	<u>                    </u>
(Application No.) (出願番号)	(Filing Date) (出願日)	(Status: Patented, Pending, Abandoned) (現況: 特許許可済、係属中、放棄済)
<u>                    </u>	<u>                    </u>	<u>                    </u>
(Application No.) (出願番号)	(Filing Date) (出願日)	(Status: Patented, Pending, Abandoned) (現況: 特許許可済、係属中、放棄済)

私は、ここに表明された私自身の知識にかかわる陳述が真実であり、且つ情報と信ずることに基づく陳述が、真実であると信じられることを宣言し、さらに、故意に虚偽の陳述などを行った場合は、米国法典第18編第1001条に基づき、罰金または拘禁、もしくはその両方により処罰され、またそのような故意による虚偽の陳述は、本出願またはそれに対して発行されるいかなる特許も、その有効性に問題が生ずることを理解した上で、陳述が行われたことを、ここに宣言する。

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

# Japanese Language Declaration

(日本語宣言書)

委任状: 私は、本出願を審査する手続きを行い、且つ米国特許商標庁との全ての業務を遂行するために、記名された発明者として、下記の弁護士及び/または弁理士を任命する。(氏名及び登録番号を記載すること)

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith (*list name and registration number*)

John H. Mion, Reg. No. 18,879; Robert J. Seas, Jr., Reg. No. 21,092; Darryl Mexic, Reg. No. 23,063; Robert V. Sloan, Reg. No. 22,775; Peter D. Olexy, Reg. No. 24,513; J. Frank Osha, Reg. No. 24,625; Louis Gubinsky, Reg. No. 24,835; Neil B. Siegel, Reg. No. 25,200; David J. Cushing, Reg. No. 28,703; John R. Inge, Reg. No. 26,916; Joseph J. Ruch, Jr., Reg. No. 26,577; Sheldon I. Landsman, Reg. No. 25,430; Richard C. Turner, Reg. No. 29,710; Howard L. Bernstein, Reg. No. 25,665; Alan J. Kasper, Reg. No. 25,426; Kenneth J. Burchfiel, Reg. No. 31,333; Gordon Kit, Reg. No. 30,764; Susan J. Mack, Reg. No. 30,951; Frank L. Bernstein, Reg. No. 31,484; Mark Boland, Reg. No. 32,197; William H. Mandir, Reg. No. 32,156; Brian W. Hannon, Reg. No. 32,778; Abraham J. Rosner, Reg. No. 33,276; Bruce E. Kramer, Reg. No. 33,725; Paul F. Neils, Reg. No. 33,102; Brett S. Sylvester, Reg. No. 32,765; Robert M. Masters, Reg. No. 35,603; George F. Lehnigk, Reg. No. 36,359; John T. Callahan, Reg. No. 32,607; Steven M. Gruskin, Reg. No. 36,818; Peter A. McKenna, Reg. 38,551 and Edward F. Kenehan, Jr., Reg. 28,962

書類送付先:

Send Correspondence to:

SUGHRUE MION, PLLC  
2100 Pennsylvania Avenue, N.W., Washington, D.C. 20037-3213

直通電話連絡先: (名称及び電話番号)

Direct Telephone Calls to: (*name and telephone number*)

(202)293-7060

Full name of sole or first inventor 唯一又は第一発明者名	Fumio MATSUMOTO	
Inventor's signature 発明者の署名	<i>Fumio Matsumoto</i>	Date 日付 February 14, 2006
Residence 住所	Chichibu-shi, Saitama JAPAN	
Citizenship 国籍	JAPAN	
Post office address 郵便の宛先	c/o SHOWA DENKO K.K. 1505, Shimokagemori, Chichibu-shi, Saitama 369-1871, JAPAN	
Full name of second joint inventor, if any 第二共同発明者名 (該当する場合)		
Second inventor's signature 第二発明者の署名		Date 日付
Residence 住所		
Citizenship 国籍		
Post office address 郵便の宛先		

(第三以降の共同発明者についても同様に記載し、署名をすること。)

(Supply similar information and signature for third and subsequent joint inventors.)